

**CLAIMS**

1. System for executing a software application comprising  
a computer system connected to a plurality of input/output interfaces (11-14) and  
5 a database (6),  
the computer system being arranged for implementing a generic application  
engine (5) and for receiving an application specification (10) as input for the generic  
application engine (5),  
which generic application engine (5) is connected to the plurality of input/output  
10 interfaces and to the database (6), the generic application engine (5) being arranged to  
use a set of functional components, such as database operations, logical operations,  
presentation functions, user input/output interfaces, logging and monitoring, to convert  
the application specification (10) into the software application,  
the application specification (10) comprising:  
15 a) a specification of a plurality of data classes, a data class being a description of  
objects relevant within the software application, and the plurality of data classes  
forming a structure by means of relations;  
b) a specification of at least one user group of the software application, a user  
group being defined as a group of users having common roles with regard to the  
20 software application; and  
c) an assignment of permissions to the at least one user group with respect to the  
plurality of data classes.
2. System according to claim 1, in which a data class hierarchy is defined in the  
25 application specification by specifying an extended data class as comprising one or  
more inherited characteristics of an associated super data class.
3. System according to claim 1 or 2, in which the application specification (10)  
further comprises for each of the plurality of data classes a specification of a plurality  
30 of fields, each field representing an element for storing data values related to an object.

4. System according to claim 3, in which a field hierarchy is defined in the application specification by specifying an extended field as comprising one or more inherited field characteristics of an associated super field.

5        5. System according to one of the claim 1 to 4, in which the application specification (10) further comprises for each of the plurality of data classes a specification of a plurality of categories, which can be used to structure all data related to an object.

10       6. System according to one of the claims 1 to 5, in which the application specification (10) further comprises a specification of a plurality of domains, a domain being a list of lookup values that can be referenced to from the specification of fields.

7. System according to one of the claims 1 to 6, in which the permissions are  
15       chosen from the group of: select permission; read permission; update permission; insert permission; copy permission; delete permission.

8. System according to one of the claims 1 through 7, in which the value of each permission is one of the group of: no; yes; follow foreign object; own; constraint.  
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9. System according to one of the claims 1 through 8, in which the application specification (10) comprises a computational specification (8) for describing further computational or logic functional parts of the software application.

25       10. System according to one of the claims 1 through 9, in which the application specification (10) comprises an appearance specification (9) for defining non-functional parts of the software application, such as user interface parts.

11. System according to one of the claims 1 through 10, in which the application  
30       specification (10) comprises an XML file.

12. System for building a software application comprising an input/output device (22), memory means (21) and processing means (20) connected to the input/output

device and memory means, the processing means (20) being arranged for defining an application specification (10), using the input/output device (22), and to store the application specification (10) in the memory means (21), which application specification can be input in a system for executing a software application according to one of the claims 1 through 11.

13. Method for executing a software application comprising inputting an application specification (10) into a generic application engine (5), which generic application engine (5) is connected to a plurality of input/output interfaces and to a database (6), the generic application engine (5) being arranged to use a set of functional components, such as database operations, logical operations, presentation functions, user input/output interfaces, logging and monitoring, to convert the application specification (10) into the software application, the application specification (10) comprising:
- a) a specification of a plurality of data classes, a data class being a description of objects relevant within the software application, and the plurality of data classes forming a structure by means of relations;
  - b) a specification of at least one user group of the software application, a user group being defined as a group of users having common roles with regard to the software application; and
  - c) an assignment of permissions to the at least one user group with respect to the plurality of data classes.

14. Method according to claim 13, in which a data class hierarchy is defined in the application specification by specifying an extended data class as comprising one or more inherited characteristics of an associated super data class.

15. Method according to claim 13 or 14, in which the application specification (10) further comprises for each of the plurality of data classes a specification of a plurality of fields, each field representing an element for storing data values related to an object.

16. Method according to claim 15, in which a field hierarchy is defined in the application specification by specifying an extended field as comprising one or more inherited field characteristics of an associated super field.

5        17. Method according to one of the claims 13 through 16, in which the application specification (10) further comprises for each of the plurality of data classes a specification of a plurality of categories, which can be used to structure all data related to an object.

10       18. Method according to one of the claims 13 through 17, in which the application specification (10) further comprises a specification of a plurality of domains, a domain being a list of lookup values that can be referenced to from the specification of fields.

15       19. Method according to one of the claims 13 through 18, in which the permissions are chosen from the group of: select permission; read permission; update permission; insert permission; copy permission; delete permission.

20       20. Method according to one of the claims 13 through 19, in which the values of each permission is one of the group of: no; yes; follow foreign object; own; constraint.

25       21. Method according to one of the claims 13 through 20, in which the application specification (10) further comprises a computational specification (8) for describing further computational or logic functional parts of the software application.

22. Method according to one of the claims 13 through 21, in which the application specification (10) further comprises an appearance specification (9) for defining non-functional parts of the software application, such as user interface parts.

30       23. Method according to one of the claims 13 through 22, in which the application specification (10) is stored as an XML file.

24. Method for building a software application comprising

defining an application specification (10) and storing the application specification (10), which application specification is arranged to be used in a method for executing a software application according to one of the claims 12 through 23.

5        25. Computer program product comprising computer readable code, which allows a computer when loaded with the computer readable code to implement a generic application engine (5) as used in the system according to one of the claims 1 to 11, or in the method as used in the method according to one of the claims 13 to 23.

10        26. Computer program product comprising computer readable code, which allows a computer when loaded with the computer readable code to define an application specification (10) which is adapted to be entered in a generic application engine (5) running on the computer, the application specification comprising:

15        a) a specification of a plurality of data classes, a data class being a description of objects relevant within the software application, and the plurality of data classes forming a structure by means of relations;

      b) a specification of at least one user group of the software application, a user group being defined as a group of users having common roles with regard to the software application; and

20        c) an assignment of permissions to the at least one user group with respect to the plurality of data classes.